

Application No. 10/092,288
Amendment dated December 5, 2006
After Final Office Action of July 28, 2006

(Formerly 13212.111)

Docket No.: 013212.0147C1US

AMENDMENTS TO THE CLAIMS

Cancel Claims 1-15.

16. (Currently Amended) An on-demand fulfillment system for the customized production of social expression products, the production of which comprises a multi-step manufacturing process, the on-demand fulfillment system comprising:

a plurality of social expression product manufacturing means, each adapted to automatically implement a step in a multi-step social expression product manufacturing process;

data interface means for receiving social expression product order data from a customer to define a social expression product, comprising:

login means for providing a display screen that enables the customer to login to the on-demand fulfillment system,

product selection means for presenting a plurality of display screens that enable said customer to select an available social expression product from a plurality of social expression product choices,

product customization means for presenting a plurality of display screens that enable said customer to customize at least one of the selected social expression products to define a product that is unique to the customer, and

product order means for presenting said customer with at least one display screen to enable said customer to place a product order for said selected, customized social expression products as defined in a set of social expression product order data;

process setup means, responsive to said received social expression product order data, for automatically defining a multi-step social expression product manufacturing process to produce said defined social expression product; and

process management means for automatically activating, in a sequence defined by said multi-step social expression product manufacturing process, ones of said plurality of social expression product manufacturing means to implement said defined multi-step social expression product manufacturing process;

transport means for interconnecting said plurality of social expression product manufacturing means to transport, in a predetermined order, a partially completed defined product to each of said interconnected plurality of social expression product manufacturing means;

stock feed means for feeding at least one piece of printable stock to said transport means;

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and

wherein said transport means comprises:

stock gripper means for securely gripping said at least one piece of printable stock
on said transport means,

stock registration means for automatically registering said transport means with
respect to each successive ones of said plurality of social expression product manufacturing
means to enable said each successive ones of said plurality of social expression product
manufacturing means to operate on said at least one piece of raw material which is located
on said transport means in a precise orientation with respect to each successive ones of said
plurality of social expression product manufacturing means.

17. (Original) The on-demand fulfillment system of claim 16 wherein said process setup means comprises:

social expression product component definition means, responsive to said received social expression product order data, for identifying a plurality of said social expression product manufacturing means required to produce said defined social expression product;

process step means for defining an operation to be performed by each of said identified plurality of said social expression product manufacturing means; and

control data generating means for generating a set of manufacturing apparatus control data that defines said identified plurality of social expression product manufacturing means, an operation to be performed by each of said identified plurality of social expression product manufacturing means, and a sequence of said operations to manufacture said social expression product.

Cancel Claims 18-20.

21. (Currently Amended) The on-demand fulfillment system of claim [[20]] 16 wherein said process management means comprises:

means, responsive to said generated set of manufacturing apparatus control data, for enabling each of said identified plurality of social expression product manufacturing means in sequence to perform said identified operation on a partially completed social expression product as said partially completed social expression product is transported by said transport means to each of said plurality of social expression product manufacturing means in said predetermined order.

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22. (Original) The on-demand fulfillment system of claim 21 wherein said plurality of social expression product manufacturing means further comprises at least two of:

printer means for printing customer selected content on said precisely oriented printable stock;

emboss means for embossing said precisely oriented printable stock;

printable stock scoring means for scoring said precisely oriented printable stock; and

fold means for folding said scored precisely oriented printable stock.

23. (Original) The on-demand fulfillment system of claim 22 wherein said plurality of social expression product manufacturing means comprises:

stack means for accumulating a plurality of said social expression product into a configuration for packaging.

24. (Original) The on-demand fulfillment system of claim 23 wherein said plurality of social expression product manufacturing means comprises:

packaging means for wrapping said stacked plurality of said social expression product for shipment to said customer.

25. (Original) The on-demand fulfillment system of claim 16 wherein said data interface means comprises:

communication network interface means for interconnecting with a communication medium consisting of one of the class of communication media including: IP network, Public Switched Telephone Network, cellular network.

26. (Original) The on-demand fulfillment system of claim 25 wherein said data interface means further comprises:

screen display means for providing said customer with a plurality of data entry options to enable said customer to select and customize said product.

27. (Previously presented) The on-demand fulfillment system of claim 25 wherein said data interface means further comprises:

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file upload means for receiving a pre-processed data file from a computer system that defines, at least in part, a multi-step manufacturing process to produce said defined product.

28. (Original) The on-demand fulfillment system of claim 16 wherein said process setup means comprises:

process file generation means, responsive to said received product order data, for generating a plurality of data files to control the operation of ones of said plurality of manufacturing means to implement said defined multi-step manufacturing process.

29. (Original) The on-demand fulfillment system of claim 28 wherein said process management means comprises:

manufacturing module control means, responsive to said plurality of data files, for activating selected ones of said plurality of manufacturing means with a corresponding one of said plurality of data files to implement said defined multi-step manufacturing process.

30. (Currently Amended) A method of operating an on-demand fulfillment system for the customized production of products, the production of which comprises a multi-step manufacturing process, the on-demand fulfillment system comprising a plurality of manufacturing modules, each adapted to automatically implement a step in a multi-step manufacturing process, the method comprising:

receiving product order data from a customer to define a product, comprising:

providing a display screen that enables the customer to login to the on-demand fulfillment system,

presenting a plurality of display screens that enable said customer to select an available product from a plurality of product choices,

presenting a plurality of display screens that enable said customer to customize at least one of the selected products, and

presenting said customer with at least one display screen to enable said customer to place a product order for said selected, customized products as defined in a set of product order data;

automatically defining, in response to said received product order data, a multi-step manufacturing process to produce said defined product; and

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automatically activating, in a sequence defined by said multi-step manufacturing process, ones of said plurality of manufacturing modules to implement said defined multi-step manufacturing process;

interconnecting said plurality of manufacturing modules to transport on a transport element, in a predetermined order, a partially completed defined product to each of said interconnected plurality of social expression product manufacturing modules;

feeding at least one piece of printable stock to said transport element; and
wherein said transport element performs the functions of:

securely gripping said at least one piece of printable stock on said transport element,
automatically registering said transport element with respect to each successive ones
of said plurality of manufacturing modules to enable said each successive ones of said
plurality of manufacturing modules to operate on said at least one piece of raw material
located on said transport element in a precise orientation with respect to each successive
ones of said plurality of social expression product manufacturing modules.

Cancel Claims 31-32.

33. (Currently Amended) The method of operating an on-demand fulfillment system of claim [[32]] 30 wherein said step of defining comprises:

identifying, in response to said received product order data, a plurality of said social expression product manufacturing modules required to produce said defined product;

defining an operation to be performed by each of said identified plurality of said social expression product manufacturing modules; and

generating a set of data that defines both said identified plurality of social expression product manufacturing means and an operation to be performed by each of said identified plurality of social expression product manufacturing modules.

34. (Currently Amended) The method of operating an on-demand fulfillment system of claim 33 wherein said step of activating comprises:

enabling, in response to said generated set of data, each of said identified plurality of social expression product manufacturing modules in sequence to perform said identified operation on a partially completed product as said partially completed product is transported to each of said

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plurality of social expression product manufacturing modules in said predetermined order.

35. (Currently Amended) The method of operating an on-demand fulfillment system of claim 32 comprising:

feeding at least one piece of raw material to a social expression product manufacturing module.

36. (Currently Amended) The method of operating an on-demand fulfillment system of claim 35 further comprising:

registering said at least one piece of raw material to enable successive ones of said plurality of social expression product manufacturing modules to operate on said at least one piece of raw material located in a precise orientation.

37. (Original) The method of operating an on-demand fulfillment system of claim 36 further comprising at least two of: printing, embossing, scoring, stock cutting, stock folding.

38. (Original) The method of operating an on-demand fulfillment system of claim 32 comprising:

receiving and aggregating a predetermined plurality of manufactured social expression products.

39. (Original) The method of operating an on-demand fulfillment system of claim 38 comprising:

wrapping said predetermined plurality of manufactured social expression products into an integral package for delivery to a customer.

40. (Original) The method of operating an on-demand fulfillment system of claim 30 wherein said step of receiving product order data comprises:

interfacing with a communication medium consisting of a one of the class of communication media including: IP network, Public Switched Telephone Network, cellular network.

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41. (Original) The method of operating an on-demand fulfillment system of claim 40 wherein said step of receiving product order data further comprises:

providing said customer with a plurality of data entry options to enable said customer to select and customize said product.

42. (Previously presented) The method of operating an on-demand fulfillment system of claim 40 wherein said step of receiving product order data further comprises:

receiving a pre-processed data file from a computer system that defines, at least in part, a multi-step manufacturing process to produce said defined product.

43. (Currently Amended) The method of operating an on-demand fulfillment system of claim 30 wherein said step of automatically defining comprises:

generating, in response to said received product order data, a plurality of data files to control the operation of ones of said plurality of social expression product manufacturing modules to implement said defined multi-step manufacturing process.

44. (Currently Amended) The method of operating an on-demand fulfillment system of claim 43 wherein said step of automatically activating comprises:

activating, in response to said plurality of data files, selected ones of said plurality of social expression product manufacturing modules with a corresponding one of said plurality of data files to implement said defined multi-step manufacturing process.